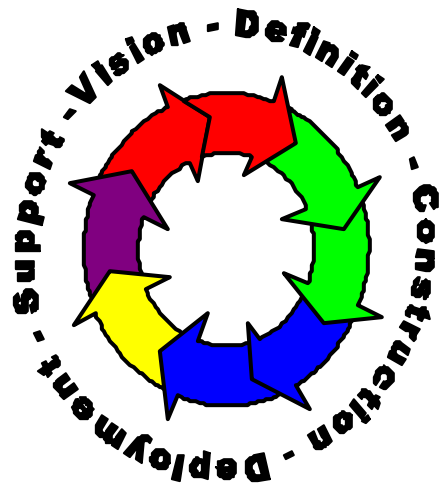




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PRODUCTION READINESS PROCESS GUIDE

**Version 3.0 Release 1.0
January 5, 2003**

Title <i>Production Readiness Process</i>	Number	FSA PR
	Type	Procedure
Approval Deputy Chief Information Officer, eCAD	Effective Date	01/05/2003
	Revision No.	V 3.0 R1

1. PROCESS SPONSOR

This process was developed at the direction of the Office of the Deputy CIO for e-Commerce Application Development (eCAD). All proposed changes to this document, with supporting rationale, will be submitted in writing to the point of contact, Manager for Quality Assurance. The DCIO for eCAD will evaluate the request. If approved, the requested change will be published in accordance with the applicable Configuration Management procedures.

2. APPLICABILITY

This process applies to initial releases of new production applications, and to any enhancements to production applications the Investment Review Board (IRB) has approved. It does not apply to bug fixes and releases implemented under the applications maintenance process.

3. PURPOSE

The purpose of the Production Readiness Process is to establish a common process that defines that activities and the roles of all IT groups supporting the decision to implement a production application. This process does not address the release procedures. The release procedures are addressed by the Configuration Management procedures.

4. RESPONSIBILITIES

4.1 CHIEF INFORMATION OFFICER (CIO)

The Chief Information Officer (CIO) is responsible for managing the risks, political implications, and business benefits of the implementation and for final approval of the implementation.

4.2 EXECUTIVE SPONSOR

The Executive Sponsor is responsible for reviewing the user acceptance testing and identifying the extent to which the application will meet the business needs of the Channel and/or business unit. The Executive Sponsor is also responsible for identifying supporting participants in the production readiness process. These may be persons representing other organizations, customers of FSA, members of the community, and other areas impacted by the implementation.

4.3 DEPUTY CHIEF INFORMATION OFFICER (DCIO) FOR ECAD

The DCIO for eCAD is responsible for the review of the application development effort and identifying the extent that the development effort has been developed in accordance with the needs of the Channels and/or business units and that appropriate levels of documentation, Independent Quality Assurance and other due diligence have been performed. In addition, the DCIO for eCAD is responsible for determining the appropriate level of effort for Independent Quality Assurance, and for selecting an independent quality assurance officer or organization.

4.4 INDEPENDENT QUALITY ASSURANCE (QA)

Independent Quality Assurance will review the application development effort and identify any anomalies in internal documentation, processes, metrics or reports. Independent QA will make a recommendation of “Go”, “Go with reservations” or “No Go”.

4.5 DEPUTY CHIEF INFORMATION OFFICER (DCIO) FOR ENTERPRISE IT MANAGEMENT

The DCIO for Enterprise IT Management is responsible for reviewing the application architecture and identifying the extent to which it conforms to enterprise technology standards. The DCIO for Enterprise IT Management is also responsible for identifying key participants in the production readiness process. These may be persons representing other systems, applications, architectures, or areas impacted by the implementation.

4.6 DEPUTY CHIEF INFORMATION OFFICER (DCIO) FOR IT SERVICES

The DCIO for Enterprise IT Services is responsible for reviewing the documentation prepared for the Virtual Data Center (VDC) and identifying the extent to which they satisfies all operational needs and readiness.

4.7 FSA SECURITY OFFICER

The FSA Security Officer is responsible for overseeing the review of the security documentation performed by the Project System Security Officer and identifying the extent to which it conforms to Federal, Departmental, and FSA security policies, procedures, and guidance.

4.8 FSA CHANNEL INTEGRATED PROJECT TEAM (IPT) LEAD

The FSA Channel or business unit IPT lead is responsible for reviewing all aspects of the project completion identifying gaps in completion, and implementation risks. The IPT Lead is also responsible for the preparation of the Production Readiness Presentation, and the development and implementation of risk mitigation strategies. In the performance of their duties, the IPT Lead may call upon the input, and/or require sign-off by team members, customers, or other participants. These participants may include (but are not limited to):

- The Development Team (completion of all appropriate testing and documentation, identification of risks, creation of risk mitigation strategies, preparation of Production Readiness Presentation)
- The Testing Team (description of completed testing, and test results)
- User Acceptance Participants (description of completed testing and test results)
- System Security Officer
- System Architect (description of architecture, completion of appropriate documentation, identification of risks, creation of risk mitigation strategies)
- Virtual Data Center (VDC) Operations Manager (concurrence with all provided documentation, readiness to begin operating the system)
- Applications Maintenance Support Team Lead (concurrence with all provided documentation, readiness to begin support and maintenance of the system)
- Help Desk Manager (concurrence with all provided Help Desk Scripts, readiness to begin receiving, responding to, and redirecting calls from users)
- ED CIO (Certification and documentation required for any changes or additions to the ED LAN client desktop)

1. SOURCE DOCUMENTS

The following documents provide standards and guidance for materials for the PRR.

- Applications Readiness Criteria (describes principles of production readiness and provides a comprehensive checklist)
- All Project Documentation, from inception (Business Case) to completion.
- Summary Checklist (for Applications Maintenance Readiness)
- Virtual Data Center (VDC) Documentation Instructions (for Operational Readiness)
- System Security Officer training documentation (for conformance to security requirements)
- FSA Security Solution Lifecycle Guide

6. PROCESS

The production readiness effort begins with the integrated project team and culminates in the production readiness presentation. Section 6.3 describes the production readiness presentation. For understanding of the process, it may be helpful to review the presentation first, since it is the goal of the process.

PREPARATION <i>(IPT Internal Review)</i>	COLLABORATION <i>(Working with Other Groups)</i>	PRESENTATION <i>(Review and Sign-off)</i>
Source Documents <i>Applications Readiness Criteria</i> <i>All Project Documentation</i> <i>Summary Checklist</i> <i>VDC Documentation Instructions</i> <i>System Security Officer Training</i>	Source Documents <i>All Project Documentation</i> <i>Completed Summary Checklist</i> <i>Risk Analysis and Mitigation</i> <i>Draft Presentation Outline</i>	Source Documents <i>Presentation</i> <i>Supporting Documentation</i> <i>Sign-Off Memorandum</i>
Deliverables <i>Completed Summary Checklist</i> <i>VDC Documents</i> <i>Risk Analysis and Mitigation</i> <i>Draft Presentation Outline</i>	Deliverables <i>Presentation</i> <i>Supporting Documentation</i> <i>Sign-Off Memorandum</i>	Deliverables <i>Signed Sign-Off Memorandum</i>
Participants <i>Members of IPT</i>	Participants <i>Members of IPT</i> <i>Responsible Participants</i> <i>Implied Participants</i> <i>Key Participants</i>	Participants <i>Members of IPT</i> <i>Responsible Participants</i> <i>Implied Participants</i> <i>Key Participants</i>

6.1 PREPARATION

The integrated project team prepares for production readiness by reviewing and preparing internal documentation, and reviewing the status of the application among themselves. The team also prepares for steps 6.2 Collaboration, and 6.3 Presentation and Sign-off.

6.1.1 Review and Preparation of Internal Documentation

The Applications Readiness Criteria provides a detailed description of all requirements for production readiness. Documentation to be reviewed and prepared may include (but is not limited to):

- Business Case
- Requirements documents
- Test plans (and comparison to requirements documents)
- Test results
- Security plans and documents
- Configuration Management plans and documents
- Disaster Recovery Plan
- Risk Management Plan
- FSA Security Solution Lifecycle Checklists

Appendix A shows a Summary Checklist for use in performing a gap analysis. The gap analysis provides the basis for the risk identification and the development of the risk mitigation strategy.

6.1.2 Preparation for Collaboration

Activities include (but are not limited to):

- Identification of all external organizations and representatives who will participate in the production readiness process
- Initial discussions with each external organization and representative to identify their individual needs and requirements
- Creation of Virtual Data Center (VDC) documents (should be accomplished in cooperation with the Virtual Data Center)
- Comprehensive gap analysis (identification of all incomplete activities from the Applications Readiness Criteria production readiness checklist, assessment of risk associated with the gap and time and schedule implications associated with eliminating the gaps. There is a cost-benefit factor to the elimination of gaps that should be considered. Not all gaps need to be eliminated.)
- Risk analysis and risk mitigation strategy (based on comprehensive gap analysis)

6.1.3 Preparation for Presentation

Activities include (but are not limited to):

- Prepare review of business case and extent to which business case is expected to be achieved
- Prepare risk analysis and risk mitigation strategy

6.2 COLLABORATION

The FSA Channel IPT Team lead is responsible for directing the negotiation with all participants in the Production Readiness Process to assure concurrence. All responsible parties listed in section 4 will participate in the process. Other participants may include:

- The Virtual Data Center Operations Manager must concur that the VDC documentation is adequate and that the service levels proposed are achievable. (DCIO for Enterprise IT Services)

- The Applications Readiness Team Lead or Applications Maintenance Provider must concur that the documentation is adequate, and that the team is staffed and prepared to begin maintenance. (Executive Sponsor)
- The Help Desk Manager must concur that the help desk scripts are clear and that the Help Desk is staffed and ready to receive calls (Executive Sponsor)
- ED CIO must test and certify changes to the ED LAN client desktop.
- Other systems that have interfaces to or share resources with the application planned for release.
- Organizations external to the FSA who will use or interact with the application
- Members of the public or the community who will use or interact with the application

6.3 PRESENTATION AND SIGN-OFF

The FSA Channel or Business Unit IPT Team Lead is responsible for directing the preparation of the presentation and selecting a presenter. The presentation should not exceed 45 minutes in length, including management questions. The presentation is an executive overview of the production readiness. Detailed supporting documentation will back up any claims, assertions, or metrics presented and will be delivered at the end of the presentation.

6.3.1 Presentation Outline

The presentation outline may be customized to meet the needs and interests of the CIO. Critical issues may vary based on the type of development (buy, build, or adapt), the cost of the effort, the criticality of the business benefit, the degree of exposure to the public, and other strategic issues. The outline should be discussed with the CIO prior to the Presentation as part of the Collaboration step.

Slide 1: Approach

- Summary of Business Case
- Summary of Approach
- Overview of Cost and Schedule Results/Issues
- Planned Effectiveness Measures

Slide 2: Testing Summary

- Type of Tests (Unit, System, Acceptance, Integration, Regression, Alpha, Beta, Performance, Stress, Capacity)
- Identify tools used and review results
- Summary of Results (number of problems, number and criticality of outstanding problems)

Slide 3: Collaboration

- ☐ VDC Readiness
- ☐ Security Checklist
- ☐ Enterprise Architecture Review
- ☐ Applications Maintenance Readiness
- ☐ Help Desk Readiness

Slide 4: Independent Quality Assurance

- Summary of Approach and Activities
- Recommendation
- Go
- Go with Reservations (list reservations)
- No Go

Slide 5: Risk Summary (This should be derived from the applications readiness check-list and will be a summary of outstanding issues addressed in earlier slides)

- Risks and mitigation strategies
- GAP analysis and planned completion dates

Meeting Closure:

- Formal recommendations for sign-off
- Delivery of supporting documentation

6.3.2 SIGN-OFF

The sign-off memorandum is presented in Appendix B. A certificate may be substituted for the sign-off memorandum as long as the required information and signatures are included. The following signatures are required for sign-off.

- The Independent Quality Assurance Officer
- The FSA Channel or Business Unit IPT Lead
- CSC FSA Account Executive
- The Executive Sponsor
- The CIO

6.3.2.1 Independent Quality Assurance Officer Certification

The Independent Quality Assurance Manager certifies by their signature that the Quality Assurance was performed and that the methods used and the findings identified are described in the presentation and in the supporting documentation.

6.3.2.2 FSA Channel or Business Unit IPT Lead Certification

The IPT lead certifies by their signature that, to their knowledge, all reasonable due diligence has been exercised to assure system stability and operability, and that known risks have been identified and described in the presentation and in the supporting documentation.

6.3.2.3 CSC FSA Account Executive

The CSC FSA Account Executive certifies by their signature that, to their knowledge, all VDC issues and concerns have been addressed and the VDC is ready to accept the system into the VDC production environment.

6.3.2.4 Executive Sponsor Certification

The Executive Sponsor certifies by their signature that, to their knowledge, user testing has been performed and the results indicate that business benefit will be derived by the implementation of the system.

6.3.2.5 CIO Certification

The CIO certifies by their signature that, to their knowledge, all reasonable due diligence has been exercised to assure system stability and operability, and that the risks identified and described in the presentation and in the supporting documentation are reasonable given the expected business benefit.

6.3.3 Results of Sign-Off

In the event sign-off does not occur, concurrence should be reached on the actions, activities, or deliverables that must be completed prior to implementation. At the discretion of the CIO, sign-off may occur provided these agreed upon provisions are met, or another presentation and production

readiness meeting may be required. There are four potential outcomes of the sign-off: Unconditional Sign-off, Conditional Sign-off, Provisional Sign-off, No Sign-off.

6.3.3.1 Unconditional Sign-Off

Unconditional Sign-off means that all required signatures are obtained at the production readiness meeting and there are no outstanding issues that must be resolved prior to implementation.

6.3.3.2 Conditional Sign-Off

Conditional Sign-off means that although all required signatures are obtained, implementation may not occur until certain conditions are met. These conditions should be written on the front of the memorandum or certificate before the signatures, or on the back of the memorandum or certificate with a notation on the front that the approval is conditional.

6.3.3.3 Provisional Sign-Off

Provisional Sign-off means that one or more signatures were NOT obtained at the production readiness review. Conditions have been identified that must be met before the missing signatures can be obtained. Once the conditions are met, the signatures can be obtained individually; an additional Production Readiness Presentation is not required.

6.3.3.4 No Sign-off – Reschedule Production Readiness Presentation

Insufficient information exists at this time to approve the system for production readiness. No signatures are obtained and a new production readiness presentation will be required. The missing information should be clearly identified and understood so that the next Production Readiness Presentation will be successful.

7. DELIVERABLES

- Completed Sign-off Memorandum or Certificate
- Detailed supporting Documentation

Completed Sign-off memorandum or Certificate, along with detailed supporting documentation, should be retained by the FSA Channel or Business Channel IPT Team Lead, and a copy delivered to the Contracting Officer Technical Representative (COTR).

Appendix A: Summary Checklist

Appendix B: Sign-Off Memorandum

APPENDIX A

Summary Checklist

(As of Date:)

CRITERIA DESCRIPTION	GAP (Y/N)	COMMENTS/ HOW VALIDATED (Document Name)	WORK EFFORT	TARGET CMPL DATE	STATUS	RESP	RISKS IDENTIFIED	PROPOSED RISK MITIGATION
CLIENT								
Escalation Process								
Operations Change Control Procedures								
Operations Applications Management Task Order Reviewed and Approved								
GENERAL								
Project Definition Documentation								
- Task Order								
- Scope								
- Approach								
- Business Drivers								
SERVICE OPERATIONS/ RECOVERY/ CONTINGENCY								
VDC Operations Documentation								
- Responsibility Matrix (Updated 07/2001)								
- Call Out List (Updated 07/2001)								
- VDC Operations Checklist								
- (Blank)								

**Federal Student Aid
STANDARDS AND PROCEDURES**

Production Readiness Process

CRITERIA DESCRIPTION	GAP (Y/N)	COMMENTS/ HOW VALIDATED (Document Name)	WORK EFFORT	TARGET CMPL DATE	STATUS	RESP	RISKS IDENTIFIED	PROPOSED RISK MITIGATION
- Memorandum of Understanding /Operations SLA (SLA Updated 07/2001)								
- Run Book (Updated 07/2001)								
- Installation Guidelines (Updated 07/2001)								
- Diagnostics List (Update 07/2002)								
- (Blank)								
Number of Application Users								
Application Service Level Agreement (SLA)								
Application Operating Level Agreement								
Application Help Desk established								
Operational Readiness Review (ORR)								
CONFIGURATION MANAGEMENT/SOURCE CONTROL								
Configuration Management Plan								
Version Control Procedures								
Source Code Library								
TECHNICAL ARCHITECTURE								
Architecture Design								
Development (i.e. coding) Standards								
Solution Life Cycle compliance								

**Federal Student Aid
STANDARDS AND PROCEDURES**

Production Readiness Process

CRITERIA DESCRIPTION	GAP (Y/N)	COMMENTS/ HOW VALIDATED (Document Name)	WORK EFFORT	TARGET CMPL DATE	STATUS	RESP	RISKS IDENTIFIED	PROPOSED RISK MITIGATION
Environment Specifications								
- Development								
- Test								
- Production								
LICENSING								
Software License Requirements (incl. Paid Licenses)								
CODE REVIEW								
User Specifications								
Functional Specifications								
Technical Specifications								
SECURITY								
Application Security Requirements								
Security Officer Identified by appointment memo.								
Rules of Behavior for System Users								
Personnel Security Classifications for users, developers, testers, and others								
Disaster Recovery/Continuity of Operations Plan								
Data Integrity/Validation Controls								
Audit Trails								
System Security Plan								
Certification and Accreditation Plan (with Interim Approval to Operate memo signed by the								

**Federal Student Aid
STANDARDS AND PROCEDURES**

Production Readiness Process

CRITERIA DESCRIPTION	GAP (Y/N)	COMMENTS/ HOW VALIDATED (Document Name)	WORK EFFORT	TARGET CMPL DATE	STATUS	RESP	RISKS IDENTIFIED	PROPOSED RISK MITIGATION
system owner)								
Security Risk Assessment complete and mitigation plan implemented								
SA Security Solution Lifecycle Checklists (Vision - Deployment)								
Inventory Worksheet								
MOU/MOA/SLA (if applicable)								
Privacy Act Systems of Records Review (if applicable)								
TESTING								
Test Strategy and Approach (for all levels of testing)								
Test Model (incl. test plans and test scripts mapped to the appropriate requirements)								
Test Data								
Documented Test Results								
Section 508 requirements tested and verified by ED Assistive Technology Group (ATG) located in FOB-6. POC: Joe Tozzi								
SIR Log								
Client and User Sign -Off								
APPLICATION TRAINING								
User Training Conducted								
User Installation and Setup Procedures								
On-going Training Function Available								
TRANSITION TO OPERATIONS								

**Federal Student Aid
STANDARDS AND PROCEDURES**

Production Readiness Process

CRITERIA DESCRIPTION	GAP (Y/N)	COMMENTS/ HOW VALIDATED (Document Name)	WORK EFFORT	TARGET CMPL DATE	STATUS	RESP	RISKS IDENTIFIED	PROPOSED RISK MITIGATION
Open SIR Responsibility Identified and Agreed Upon								
Support available for Software Package								
Organizational Design and Skills Identified								
Knowledge Transfer Plan								
Post-Implementation Review (PIR) Advanced Packet received (See: FSA/CIO/Ecommerce – QA team)								

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**APPENDIX B
Sign-Off Memorandum**

Date:

This certifies that the _____ system has been tested and is recommended for implementation.

Independent Quality Assurance Signature:

{Name}
{Title}

Security Officer Signature:

{Name}
{Title}

CSC FSA Account Executive:

{Name}
{Title}

Executive Sponsor Signature:

{Name}
{Title}

CIO Signature:

{Name}
{Title}

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Change History for PR 0.00 – Production Readiness Process

Revision #	Date	Change Description/Purpose
1.0 R0	10/06/00	Initial draft. References several procedures that do not yet exist, and also refers to documents that have not been formally approved. Release procedures, configuration management procedures for this process, security training information, and other issues are still TBD.
1.0 R1	10/17/00	Added ED CIO for ED LAN Certification as an additional collaborator. Incorporate FSA CIO comments.
1.0 R2	10/23/00	Added descriptions for signature certifications
2.0 R1	08/06/01	VDC Operations Documentation: Deleted – Escalation List, Due Diligence and Troubleshooting Guide. 07/2001. (Appendix A and B.)
2.0 R1	08/06/01	VDC Operations Documentation: Indicated Updated Responsibility Matrix 07/2001. (Appendix A and B.) (Changed Responsibilities to Responsibility)
2.0 R1	08/06/01	VDC Operations Documentation: Indicated Updated Call Out List, 07/2001. (Appendix A and B.)
2.0 R1	08/06/01	VDC Operations Documentation: Added VDC Operations Checklist. (Appendix A and B.)
2.0 R1	08/06/01	VDC Operations Documentation: Indicated Updated SLA, 07/2001. (Appendix A and B.)
2.0 R1	08/06/01	VDC Operations Documentation: Indicated Updated Run Book 07/2001. (Appendix A and B.)
2.0 R1	08/06/01	VDC Operations Documentation: Indicated Updated Installation Guidelines, 07/2001. (Appendix A and B.)
2.0 R1	08/06/01	VDC Operations Documentation: Indicated Updated Diagnostics List 07/2001. (Appendix A and B.)
2.0 R1	08/06/01	Application Security Requirements: Indicated Security Office (SSO) identified “by appointment memo” , (Appendix A and B.)
2.0 R1	08/06/01	Application Security Requirements: Added “ Security Risk Assessment complete and mitigation plan implemented” , (Appendix A and B.)
2.0 R1	08/06/01	Test Strategy and Approach: Added “Section 508 Requirements tested and verified by ED Assistive Technology Group” , (Appendix A and B.)
2.0 R2.0	07/18/02	Added “CSC FSA Account Executive” to Section 6.3.2 and Sign Off Memorandum
2.0 R2.0	07/18/02	Name change “Federal Student Aid” from ‘Student Financial Assistance’
2.0 R2.0	07/18/02	Acronym change from “FSA” to “FSA”.
2.0 R2.0	07/18/02	Remove Accenture logo
2.0 R2.0	08/05/02	Added ‘AS OF DATE: ‘ to Appendix A and B
2.0 R2.0	08/05/02	Changed Appendix B title to: “Appendix B – (SAMPLE)”
2.0 R2.0	08/05/02	5. Source Documents: Added explanation sentence.
2.0 R2.0	08/05/02	Section 4.7 wording change from ‘to all OMB A130 and other security regulations’ to "Federal, Departmental, and FSA security policies, procedures, and guidance".
2.0 R2.0	08/05/02	Added FSA Security Solution Lifecycle Guide to section 5 bullet list

**Federal Student Aid
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Production Readiness Process

2.0 R2.0	08/05/02	Added FSA Security Solution Lifecycle Checklists to section 6.1.1 bullet list
2.0 R2.0	08/05/02	Application Security Requirements: Added “ FSA Security Solution Lifecycle Checklists (Vision - Deployment) ”, (Appendix A and B.)
2.0 R2.0	08/05/02	Application Security Requirements: Added “ Inventory Worksheet ”, (Appendix A and B.)
2.0 R2.0	08/05/02	Application Security Requirements: Added “ MOU/MOA/SLA (if applicable) ”, (Appendix A and B.)
2.0 R2.0	08/05/02	Application Security Requirements: Added “ Privacy Act Systems of Records Review (if applicable) ”, (Appendix A and B.)
2.0 R2.0	08/05/02	Added paragraph 6.3.2.3 CSC FSA Account Executive
2.0 R2.0	08/05/02	Renumber paragraphs 6.3.2.3 to 6.3.2.4 and 6.3.2.4 to 6.3.2.5
2.0 R2.0	08/05/02	Renumber paragraphs 6.3.2 through 6.3.2.4 to 6.3.3 through 6.3.3.4.
2.0 R2.0	08/05/02	Paragraph 7 – changed “and” to “or” - syntax correction.
2.0 R2.0	08/05/02	Appendix C – deleted ‘s’ from ‘systems’ - syntax correction.
3.0 R1.0	09/19/02	Service Operations/Recovery/Contingency: Added “Operational Readiness Review (ORR)”, (Appendix A and B.)
3.0 R 1.0	12/06/02	Delete Appendix B.
3.0 R 1.0	12/06/02	Delete last sentence section 6.1.1 referring to Appendix B on page 5.
3.0 R 1.0	12/06/02	Change reference “Appendix C” to “Appendix B” on page 7, section 6.3.2.
3.0 R 1.0	12/06/02	Page 9 – Delete “Appendix B”
3.0 R 1.0	12/06/02	Page 9 – Change Appendix “C” to “B”
3.0 R 1.0	12/06/02	Page 16 (new) Change Appendix “C” to “B”
3.0 R 1.0	12/23/02	Technical Architecture – Change wording from “Software Development Lifecycle Processes” to “Solution Life Cycle compliance”
3.0 R 1.0	12/23/02	Transition to Operations – Add text “Post-Implementation Review (PIR) Advanced Packet received (See: FSA/CIO/Ecommerce – QA team)”